

**Notice of Allowability**

Application No.

09/629,262

Applicant(s)

MILLER, DAVID J.

Examiner

Mark Fadok

Art Unit

3625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to reply filed 10/14/2004.
2. ☒ The allowed claim(s) is/are 1,2,4-7,9-12,14-17,19 and 20.
3. ☒ The drawings filed on 31 July 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of the:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.  
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached  
1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.  
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                                  |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>1/5/2005</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment  |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance                         |
|   | 9. <input type="checkbox"/> Other _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

The examiner is in receipt of applicant's response to office action mailed 3/8/2004, which was received 10/14/2004. Acknowledgement is made to the to the amendment to claims 1 and 11. The applicant and the examiner conducted an interview on 1/5/2005 and agreed to amendments to claims 1,11,12,14-17,19 and 20 as is outlined in the examiner's amendment below: The amendments and arguments have been carefully considered and were effective in overcoming the rejection set forth in the 3/8/2004 office action, therefore the following reasons for allowance are provided.

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Leland Wiesner on 1/5/2005.

The application has been amended as follows:

Replace claims 1,11,12,14-17,19 and 20 with the following:

--1. A method creating a computer graphic display useful for displaying information about a multitude of different customers comprising the process steps of:

- downloading for each customer from a web server a set of numeric values, each associated with parameters including a recency indicator, and an advocacy indicator,
- decaying the numeric value associated with the recency indicator over time according to an absence of activity by each customer;
- increasing the numeric value associated with the recency indicator over time according to recent activity by each customer
- generating for each customer a symbol;
- wherein the symbol's movement dynamically changes,
- arranging a plurality of symbols spatially to create at least one cluster in a galaxy layout according to a polar coordinate system based on the numeric values;
- displaying the galaxy layout on a display device to distinguish trends and patterns in customer behavior,
- wherein said galaxy layout contains visual representations of patterns and movement corresponding to trends in customer behavior,
- manipulating said computer graphic display by a user to identify one or more customer groups to be part of a marketing campaign, based upon identification of said cluster within a region of space in the galaxy layout,

said customer groups being further identified by customers within a user defined radius of the origin of said cluster.--

--11. A computer readable memory operable to facilitate displaying information about a multitude of different customers comprising:

a first set of instructions providing for downloading from a web server, for each customer, a set of numeric values, each associated with parameters including a recency indicator, and an advocacy indicator;

a second set of instructions generating for each customer, a symbol wherein the symbol's movement changes dynamically;

a third set of instructions operable to decay the numeric value associated with the recency indicator over time according to an absence of activity by each customer;

a fourth set of instruction operable to increase the numeric value associated with the recency indicator over time according to recent activity by each customer.

a fifth set of instructions operable to arrange a plurality of the symbols spatially to create at least one cluster in a galaxy layout according to a polar coordinate system based on the numeric values;

a sixth set of instruction operable to create a graphical display of the galaxy layout on a display device to distinguish trends and patterns in customer behavior,

said galaxy layout containing visual representations of patterns and movement corresponding to trends in customer behavior,

a seventh set of instructions invoked by a user to manipulate said graphical display of information to identify one or more customer groups to be part of a marketing

Art Unit: 3625

campaign, based upon identification of said cluster within a region of space in the galaxy layout,

said customer group being further identified by customers within a user defined radius of the origin of said cluster.--

--12. The computer readable memory of claim 11 including an eighth set of instructions to generate the numeric values based on an Internet communication activity of the customer.--

--14. The computer readable memory of claim 12 including a ninth set of instructions to convert initial data based on the communication activity to a limited data set of the numeric values.--

--15. The computer readable memory of claim 14 including a tenth set of instructions to receive additional data based on further communication activity, and to modify the numeric values based on the additional data.--

--16. The computer readable memory of claim 11 wherein each symbol includes a characteristic indicating a numeric value of a selected parameter.--

--17. The computer readable memory of claim 16 wherein the characteristic is selected from a group comprising motion, color, size, shape, length, direction,

Art Unit: 3625

intensity.--

--19. The computer readable memory of claim 11 wherein the fifth set of instructions further serves to generate a representation of a three-dimensional array.--

--20. The computer readable memory of claim 11 including a eleventh [ninth] set of instructions to select a subgroup of customers based on a spatial region in which their corresponding symbols reside.--

### ***Reasons for Allowance***

Claims 1,2,4-7,9-12,14-17,19 and 20 are allowable.

The following is an Examiner's statement of reasons for allowance for independent claims 1 and 11.

The present invention is directed to a method and computer readable memory for a graphical display, which portrays consumer data in a coordinate system that provides spatially represented symbols that dynamically move to allow users to better identify marketable trends.

Independent claims 1 and 11 identifies the uniquely distinct feature as follows:

**Claim 1:**

creating a computer graphic display useful for displaying information about a multitude of different customers  
for each customer, generating a symbol;  
wherein the symbol's movement dynamically changes  
manipulating said computer graphic display by a user to identify one or more customer groups to be part of a marketing campaign, based upon identification of said cluster within a region of space in the galaxy layout

**Claim 2**

A computer readable memory operable to facilitate displaying information about a multitude of different customers comprising:  
a second set of instructions generating for each customer, a symbol  
wherein the symbol's movement changes dynamically;  
a seventh set of instructions invoked by a user to manipulate said graphical display of information to identify one or more customer groups to be part of a marketing campaign, based upon identification of said cluster within a region of space in the galaxy layout,

Discussion of most relevant art:

**US Patents and PG-PUB**

(i) US Patent 6,430,539 to Lazarus et al discloses a method for predictive modeling of consumer behavior. Lazarus et al, however fails to anticipate or render the application's above-mentioned limitation(s) obvious.

(i) US Patent 2001/0014868 Herz et al discloses a method for determining promotions through the evaluation of marketing data. Herz et al, however fails to anticipate or render the application's above-mentioned limitation(s) obvious.

(i) US Patent 6,526,389 to Murad et al discloses a method for predicting customer behavior using graphs. Murad et al, however fails to anticipate or render the application's above-mentioned limitation(s) obvious.

(i) US Patent 6,237,006 to Weinberg et al discloses a method for graphically representing web sites. Weinberg et al, however fails to anticipate or render the application's above-mentioned limitation(s) obvious.

(i) US Patent 6100901 Mohda et al discloses a method cluster exploration and visualization. Mohda et al, however fails to anticipate or render the application's above-mentioned limitation(s) obvious.

(i) US Patent 6,169,534 to Raffel et al discloses a method for displaying customer information on a graphical user interface. Raffel et al, however fails to anticipate or render the application's above-mentioned limitation(s) obvious.

(i) US Patent 6,369,819 to Pitkow et al discloses a method for visualizing transformations among related series of graphs. Pitkow et al, however fails to anticipate



Art Unit: 3625

or render the application's above-mentioned limitation(s) obvious.

(i) US Patent 5,041,972 to Frost discloses a method for evaluating consumer response for the development of consumer products. Frost, however fails to anticipate or render the application's above-mentioned limitation(s) obvious.

### **Foreign Patent Documents**

(ii) EP 1035485 to Walter et al., published 9/13/2000 teaches a method for analyzing customer transactions and interactions. Walter et al, however, fails to anticipate or render the application's above-mentioned limitation(s) obvious.

### **Non-Patent Literature**

(iii) Kok et al, Using cluster analysis to determine the media agenda, dated November 1999, teaches symbolizing clusters to facilitate clearer visualization. Kok, however, fails to anticipate or render the application's above-mentioned limitation(s) obvious.

(iv) Grushkin, Predicting movement, dated 8/3/1999 teaches application for decision processing and reporting of data. Grushkin, however, fails to anticipate or render the application's above-mentioned limitation(s) obvious.

Meyer, Information structure and the relative efficacy of tables and graphs, dated

Art Unit: 3625

Dec.1999 teaches the use of graphs for displaying information and providing a decision making tool. Meyer, however, fails to anticipate or render the application's above-mentioned limitation(s) obvious.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Mark Fadok** whose telephone number is **(703) 605-4252**. The examiner can normally be reached Monday thru Thursday 8:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Wynn Coggins** can be reached on **(703) 308-1344**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Receptionist** whose telephone number is **(703) 308-1113**.

Any response to this action should be mailed to:

***Commissioner for Patents***

***P.O. Box 1450***

Alexandria, Va. 22313-1450  
or faxed to:

**(703) 872-9306**

[Official communications; including


After Final communications labeled

"Box AF"]

(703) 746-7206 [Informal/Draft communications, labeled

"PROPOSED" or "DRAFT"]

Hand delivered responses should be brought to Crystal Park 5, 2451 Crystal  
Drive, Arlington, VA, 7<sup>th</sup> floor receptionist.



Mark Fadok

Patent Examiner



WYNN W. COGGINS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600